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## Purpose of and Need for Action

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photography: Bob Ballantyne

#### **Overleaf:**

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A key issue is how to provide a better interpretive experience for recreational visitors.

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The native Virginia bluebell and the exotic invasive lesser celandine compete for space. Management for biodiversity is a key issue.

# Chapter 1: Purpose and Need for Action

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## 1.1 Introduction

The 1777-78 winter encampment of General George Washington's Continental Army at Valley Forge is one of the most famous episodes of the American Revolution. The significance of the encampment lies both in its fact-based history and also its storied myth. The mythical narrative is important in its own right, for it reveals something about our character in the heroic way we wish the Revolution to be remembered. It is an inspiring story of triumph through sacrifice. Valley Forge remains a memorial – a place that is essential to understanding and commemorating the founding principles of the nation. This *Draft General Management Plan/Environmental Impact Statement* (GMP/EIS) presents alternatives for the future management of Valley Forge National Historical Park (NHP), a special place in American history.

When citizens joined together in the 1870s to protect Valley Forge, their common vision was the preservation of a significant and meaningful place that had inspired the Continental Army; a place that continued to inspire Americans a century later. Since the founding of the park, citizens have come together a number of times to advocate for it and to protect its important resources from threats. The tradition of citizen stewardship continues every day, as park volunteers and partners participate in the ongoing work of preservation and interpretation. Each of them shares the vision of the park as a meaningful place of inspiration, refuge, commemoration, release, and pleasure.

It was citizen interest in this place that inspired the U.S. Congress to establish Valley Forge as a national historical park in 1976. Derived from the common vision for the place, Congress directed that the purpose of the park is to

*educate and inform present and future generations about the sacrifices and achievements of General George Washington and the Continental Army at Valley Forge, and the people, events, and legacy of the American Revolution; preserve the cultural and natural resources that embody and commemorate the Valley Forge experience and the American Revolution; and provide opportunities for enhanced understanding.*

In the 30 years since establishment, much progress toward the protection intended by the U.S. Congress has resulted, although challenges continue. Soon after the park's establishment, a GMP was completed that called for preservation and adaptive reuse of historic structures, as well as comprehensive interpretive exhibits, necessary historic research, elimination of some through-roads, reduction of parking lots, completion of the trail system, and management of recreation in the most sensitive historic areas (NPS 1982). As with many GMPs across the national park system, funding constraints prevented all but a handful of minor action items from being implemented.

Most of the park's historic structures are stabilized; some await stabilization and restoration. Nationally significant resources, as well as park visitors, are threatened by traffic congestion that spills into the park from surrounding areas. Invasive exotic plant species infest natural areas, and white-tailed deer are rampant in the region, preventing forest regeneration in the park. Despite the park's educational mission, programs provided to the public reach only 3% of park visitors. Routine maintenance of structures and landscapes is sometimes deferred. Much of the park's museum collection, which features nationally renowned American Revolution military artifacts and documents, is inadequately housed in terms of environmental and security controls, and less than 5% can be publicly displayed.

In 2000, the park was placed on the National Trust for Historic Preservation's list of "11 Most Endangered Places" due to deterioration in historic structures. In 2002, it was placed on the National Parks Conservation Association's (NPCA) list of "10 Most Endangered National Parks." The designation identified the most egregious problems facing the park as inadequate visitor services, deteriorating historic buildings closed to the public, invasive plant and animal species, development threats to privately owned lands within the park boundary, resource impacts from surrounding sprawl, and the potential taking of park land for a national cemetery.

In short, the park had not fully met its mission to ensure that the nationally significant resources of Valley Forge are here for future generations to enjoy. Since 2000, many of the threats noted by the National Trust for Historic Preservation and the NPCA have begun to be overcome, however. Changes in the deployment of interpretive rangers are providing more contact with both destination and recreational visitors. Most of the encampment-period structures have received stabilization. Eradication of exotic invasive plants is the subject of annual projects. Some of the formerly private lands within the boundary have been acquired and permanently protected. Measures to address traffic congestion have been identified, and some are underway. The national cemetery will be constructed elsewhere. In every case, these gains have been accomplished through partnerships. However, there is more to be done.

Citizens always have demanded the highest level of stewardship for this important place and continue to do so. During the planning process for this GMP, a shared vision became clear. Valley Forge NHP must be

- a place where citizens understand, care for, and preserve their history and natural heritage
- a place where life-long education is compelling
- a place that is a vital and valued part of the community

Through clear identification, understanding, and agreement about priorities, the National Park Service (NPS) and the park's many stakeholders can work together to achieve Congress' and the public's vision. In addition to many valuable current partnerships with friends of the park, volunteers, private nonprofit organizations, corporations, and state and local governments, new means of managing the park and new partnerships provide opportunities to

- transform the visitor experience throughout the park from one that is primarily active recreation to one that integrates and enhances interpretive and recreational opportunities

- develop and promote educational initiatives about the American Revolution and other themes and stories the park represents
- protect, enhance and make accessible the park’s historic buildings, landscapes, and collections
- restore natural habitats and bio-diversity
- manage traffic to provide a better experience for park visitors and neighbors while addressing regional congestion

This GMP incorporates these goals and provides strategies to take advantage of all opportunities for enhancement of resources and visitor experiences within the park.

Actions directed by GMPs or in subsequent implementation plans are accomplished over time. Budget restrictions, requirements for additional data or regulatory compliance, and competing national park system priorities prevent the immediate implementation of many actions. Major or especially costly actions could be implemented 10 or more years into the future, or may not be realized.

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## 1.2 Description of Valley Forge NHP

### 1.2.1 Regional and Cultural Context

Valley Forge NHP is located in southeastern Pennsylvania, 18 miles northwest of center city Philadelphia. Situated in rapidly growing suburbs, the park spans portions of two counties: northeastern Chester County and southwestern Montgomery County. The park also is part of five townships: Schuylkill and Tredyffrin Townships to the west and south in Chester County; and Lower Providence, West Norriton, and Upper Merion Townships to the north and east in Montgomery County (Figure 1-1). Chester and Montgomery Counties are located within the Delaware Valley, an area comprised of three additional southeastern Pennsylvania counties and five western New Jersey counties.

The Delaware Valley Regional Planning Commission (DVRPC) is the regional planning agency for the valley. Although it has no decision-making power (only townships have zoning authority), the commission’s policies and standards influence the environs of Valley Forge NHP. Within the boundaries of the park, as a federal landholding with concurrent jurisdiction, the NPS enforces federal laws and regulations as well as state laws.

The park is located in the Piedmont physiographic province of Pennsylvania, bordering the Great Valley. In general, the Piedmont is an area with elevations ranging from 100 to 500 feet above sea level and includes rolling uplands, low hills, fertile valleys, and well-drained soils. These features, combined with the prevailing climate of long, warm summers and an average annual precipitation of 46 inches, made this the leading agricultural area of the state before urban and suburban development supplanted farming.

Many cultural remnants of the colonial and revolutionary periods exist throughout the Delaware Valley. The park’s proximity to numerous revolutionary war sites and to Philadelphia, the “cradle of liberty,” places it at the center of some of the most culturally and historically rich lands in the eastern United States.

### 1.2.2 Overview of Park Resources

The park itself comprises the site of the 1777-78 winter encampment of General George Washington's Continental Army. It protects many significant cultural resources, including cultural landscapes, historic buildings and structures, archeological sites, and archives and collections. As suburban sprawl increasingly covers the land around Valley Forge, the park also increases in value as a bio-refuge for plants and animals. Supporting over 1,000 species of flora and fauna, habitats within the park include oak/tulip forests, tall grass meadows, wetlands, and riparian buffers.

In addition to its varied cultural and natural resources, the park offers visitors interpretive programming, self-guided walking and driving tours, and newly updated exhibits at the Welcome Center. Overall, many regional visitors appreciate it as a place of recreation and renewal, with approximately 80% of its visitors enjoying the park while walking, biking, boating, fishing, horseback riding, and picnicking.

### 1.2.3 Boundary and Size

The park boundary was established in 1976 by the enabling legislation that designated the former Valley Forge State Park as a unit of the national park system, transferring ownership from the commonwealth of Pennsylvania to the NPS. A number of private parcels were included within the park's boundary at the time of its establishment, with the expectation that these parcels would eventually be ceded or sold to the park. Today, most of these parcels have been acquired by the federal government. Figure 1-2 shows the current park boundary, as well as private parcels within it. The park will continue to pursue acquisitions of certain of these lands within park boundaries.

The calculation of the size of the park varies according to what parcels or tracts of property are included and excluded, such as private parcels within park boundaries, utility easements, and the rights-of-way of state and local roads. The park comprises 3,452 acres, of which approximately 270 acres are non-federal, including inholdings, roads, and utilities.

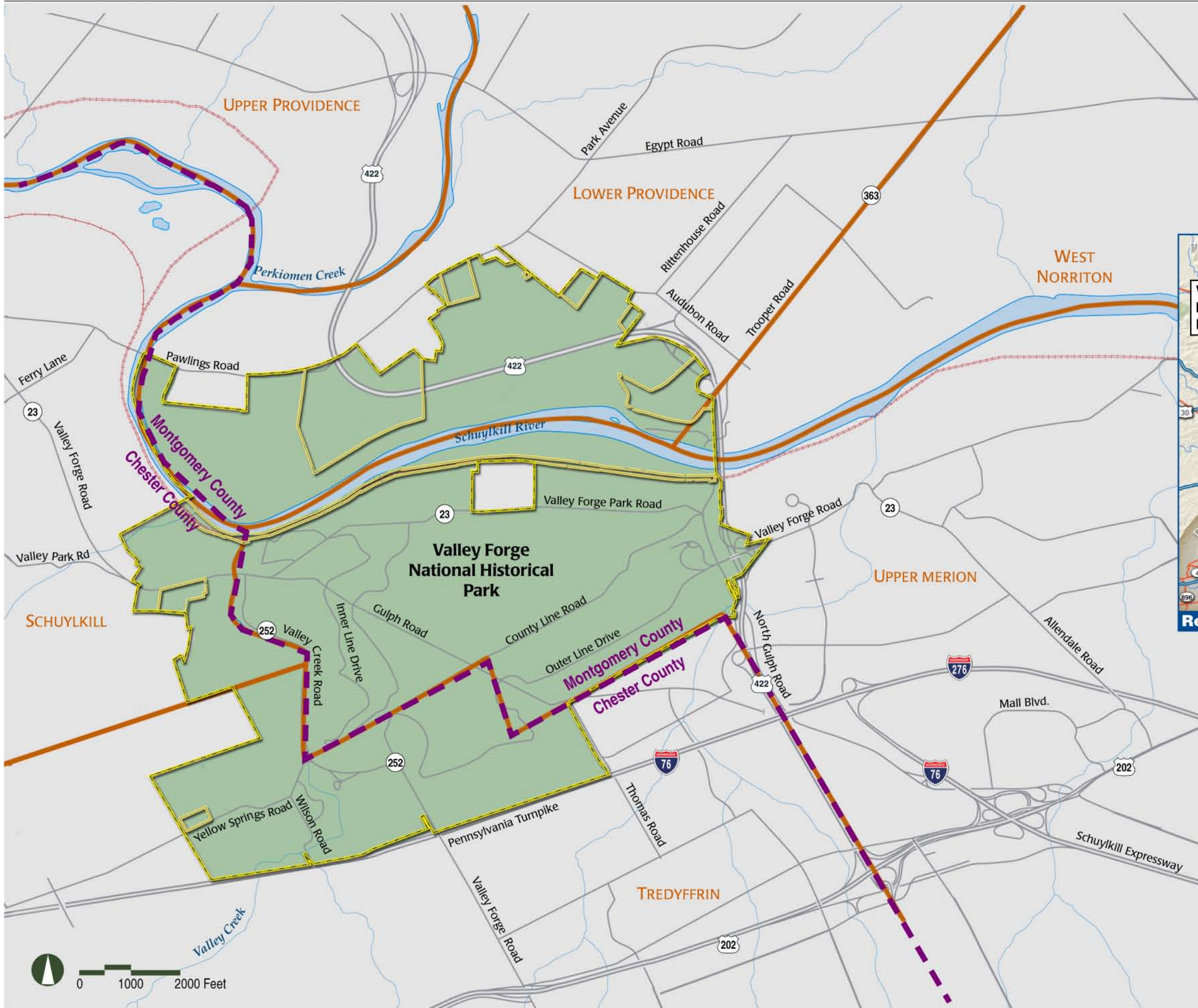
### 1.2.4 Origin and Legislative History

#### Valley Forge National Historical Park

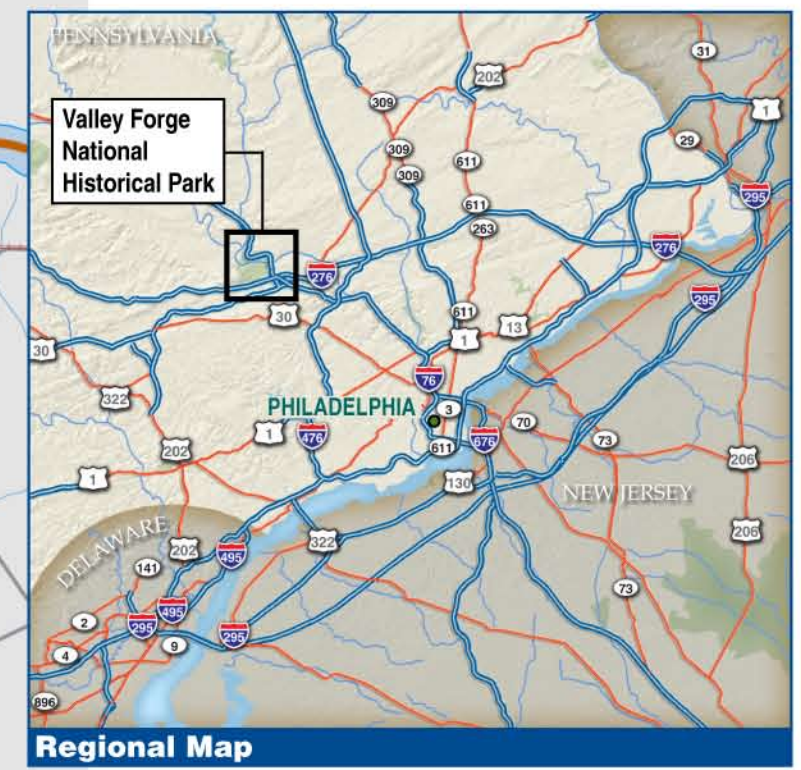
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Valley Forge often has been referred to as the "most celebrated encampment." The history of the encampment was first rediscovered and interpreted in the early 19th century, when what might have been an otherwise dreary recounting of suffering and survival was transformed into an inspiring story of triumph through sacrifice. The story has appealed to successive generations of Americans ever since.

As early as 1828, a political rally that attracted some 4,000 people was held at Valley Forge because of the symbolic importance of the place. The encampment's fame began to spread in the 1850s, and the site became a popular place for patriotic rallies and outings. During this time when political troubles split the country along sectional lines, the patriotic understanding of the Revolution as a common cause that united Americans offered a healing narrative. Two historians in this period, Benjamin Lossing and Henry Woodman, crafted a romantic picture of Valley Forge that appealed to the sensibilities of the era. They portrayed Valley Forge as the darkest hour of the Revolution and painted a picture of the encampment as a place where Washington and his soldiers patiently endured horrific conditions and where men literally froze and starved to death. Lossing and Woodman



- Park Boundary
- Inholdings
- Township Boundary
- County Boundary



**Figure 1-1**  
Park Vicinity/Regional Map



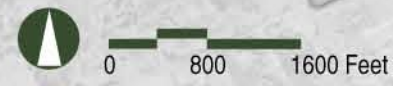




- Park Boundary
- Inholdings
- Brigade Encampment Site
- Inner Line Defenses
- Road
- Tour Road
- Visitor Parking Area
- Historic Trace
- Joseph Plumb Martin Trail
- Schuylkill River Trail
- Water Resources
- A Existing Picnic Area
- ♿ Existing Restrooms



**Figure 1-2**  
Park Map





viewed Valley Forge as the ultimate testing ground for patriotism and held up the Continental soldiers as examples to emulate in a time of national crisis.



Valley Forge was a popular site for patriotically themed outings and rallies as early as the 1820s. Picnics, outdoor banquets, and ball games often were associated with commemoration.

The celebration of the nation's 100th year of independence in 1876 provided a focal point for strengthening national unity as Americans rallied to remember a common past. Visitors to the Centennial celebrations in Philadelphia came away with a newfound appreciation for Pennsylvania's heritage. This appreciation sparked an interest in preserving Valley Forge as well. In December 1877, a date that marked the centennial of the arrival of Washington's troops at Valley Forge, 13 citizens convened to decide how to appropriately commemorate the encampment. In order to preserve Washington's Headquarters at Valley Forge, the group incorporated itself as the Centennial and Memorial Association (CMA) on July 5, 1878. The mission of the CMA expressed its future plans for the site:

*The purpose of this Association shall be to purchase, improve and preserve the lands and improvements thereon, occupied by General George Washington, at Valley Forge, and maintain them as a memorial park for all time to come (Stager 1911).*

The CMA acquired the headquarters in 1879 and restored and furnished the building. Washington's Headquarters was the third historic house museum opened in the United States.

In the 1880s and 1890s, rising interest in the Valley Forge landscape's historic and scenic features fostered several attempts to preserve not just Washington's Headquarters but also the encampment grounds. An aggressive campaign led by Francis Mark Brooke resulted in legislation creating Valley Forge State Park in 1893, Pennsylvania's first state park. The legislation enabled the commonwealth of Pennsylvania to acquire 217 acres of the Continental Army's former encampment ground from private owners and required that the park be maintained in its "original condition" and preserved for "the enjoyment of the people of said State" (Valley Forge Park Commission 1906). The Valley Forge Park Commission (VFPC), administrators of the site, acquired additional lands and structures through purchase and condemnation, and began to create a landscaped park for both commemorative and recreational use. The VFPC came to believe that the CMA was not properly maintaining Washington's Headquarters, campaigned to secure the house, and obtained title to the building from the association in 1906.



Citizens joined together in 1877 to preserve Washington's Headquarters, the beginning of a tradition of citizen stewardship of the resources of Valley Forge.



The Washington Memorial Chapel was founded in 1903. The related Valley Forge Historical Society (now the American Revolution Center) preserves an important collection of artifacts and documents, and for many years provided the only interpretive programs in the park.

In the early 20th century, a private individual in the Valley Forge community began a personal crusade to draw attention to the role of religion in the American Revolution. His efforts would have a powerful effect on the interpretation of history at Valley Forge. The Reverend Dr. Herbert Burk, an Episcopal minister, believed that George Washington drew on his religious faith to overcome the despair of the Valley Forge winter and resolved to build a chapel there in Washington's honor. In 1903, Burk laid a cornerstone for his memorial chapel on land donated to him. In 1909, he then opened the first museum at Valley Forge and eventually acquired much valuable Washingtonia. Burk and his supporters founded the Valley Forge Historical Society in 1918. Burk zealously pushed forward his vision for interpretation at Valley Forge through his chapel and museum, tour books, and the erection, in cooperation with the Daughters of the Revolution, of the first reconstructed log hut at Valley Forge. Burk's efforts at historical interpretation outshone the VFPC's accomplishments in this area and spurred them to produce their own museum and tourist information. The Washington Memorial Chapel, with its stained glass windows depicting the progress of the nation and Washington's life story, stands out as a monument to the power of civil religion in America.

At the same time as Reverend Burk developed his chapel and museum, the VFPC carried out a memorialization and park beautification program. The commission built carriage drives along the entrenchment lines, constructed an observation tower on Mount Joy, established picnic areas, and erected monuments to the brigades that had camped at Valley Forge. The commission also obliterated the existing agricultural landscape to conform to ideas of suitable grandeur. Barns and other agricultural buildings, fences, and farm lanes were removed, destroying the authentic setting and historic sense of scale. Ornamental groves of dogwoods and alleés of linden trees were planted, and Mount Joy and other areas of the park were reforested.



The Valley Forge Park Commission modified the existing agricultural landscape into a stylized commemorative landscape. Visible from left to right are the National Memorial Arch, the reconstructed Fort Washington, Outer Line Drive, and the General Wayne Statue in Wayne's Woods.

In 1911, federal involvement began at Valley Forge when the U.S. Congress appropriated \$100,000 for the erection of a National Memorial Arch to honor the Continental Army. Designed by Philadelphia architect Paul Cret, the arch is reminiscent of the Arch of Titus, in Rome. In the years following the establishment of this federal memorial in the state park, interested supporters urged numerous times that the administration of the park be assumed by the federal government, on the rationale that the site deserved more attention than the commonwealth could give.

In the years between the world wars, park management efforts moved forward in fits and starts as funding varied widely. Visitation to the park steadily increased during this period as visitors came first by train and then by car. The increased popularity of heritage sites was spurred by a federal agenda that fostered historical pilgrimages as a way to reinforce patriotism during the trying time of the Great Depression. During World War II and the Cold War, the Valley Forge story again ministered to the needs of a generation in crisis, and many rallies and ceremonies took place on the grounds. Postwar prosperity greatly increased visitation, and attendance grew from 262,646 in 1945 to 1,036,014 in 1950 (Unrau 1985). This increase in use included a growing number of recreational users coming to the park from the city of Philadelphia and the adjacent suburban region. As suburbanization increased and a fitness boom ensued in the 1970s, Valley Forge became a favorite of recreational users. Several years before the nation's Bicentennial, local citizens became concerned that the commonwealth did not have the funds or manpower to properly protect the historic shrine from the pressures of suburban encroachment and an explosion in recreational use. Citizens rallied to have Valley Forge transferred to the national park system.



Nineteenth-century carriage roads were paved to accommodate automobiles. By the 1950s, auto touring through the park, and especially the dogwood grove, seen here, became extremely popular.

The commonwealth of Pennsylvania passed Act No. 53 on July 30, 1975, which authorized the transfer of Valley Forge State Park (by now a National Historic Landmark) to the federal government. The act contains a provision (Section 5) that stipulates that the park land reverts back to the commonwealth if the “premises are no longer used for recreational and historical purposes.” On July 4, 1976, President Gerald Ford signed Public Law 94-337, which established Valley Forge National Historical Park. In 1977, the NPS assumed control with a mandate to “preserve and commemorate . . . the heroic suffering, hardship, and determination and resolve of . . . Washington’s Continental Army” (see Appendix A for a copy of the law).

Many park supporters had lobbied for a \$22 million land acquisition fund to be included in the legislation to enable the NPS to obtain the 869-acre “Chesterbrook” tract adjoining the park for its encampment-period resources and as a buffer to development. Congress passed a more economical bill that transferred the existing state park of 2,255 acres, with a provision for the addition of 216 acres of other private land. A high-density development soon appeared on the Chesterbrook site. On June 28, 1980, Congress passed Public Law 96-287, Title III of which funded and authorized an additional land purchase of 682 acres. Today, the park comprises 3,452 acres.

### 1.2.5 Park Purpose, Significance, and Mission

To create an effective GMP, the park must clearly define and understand its purpose, significance, mission, and mission goals. The U.S. Congress sets aside as national parks places that represent outstanding aspects of our natural and cultural heritage to ensure they receive the highest standards of protection. A statement of **park purpose** captures the reasons for which a park was set aside as part of the national

park system. It provides the fundamental criterion against which the appropriateness of all plan recommendations and future operational decisions and actions are tested:

*The purpose of Valley Forge National Historical Park is to educate and inform present and future generations about the sacrifices and achievements of General George Washington and the Continental Army at Valley Forge, and the people, events, and legacy of the American Revolution; preserve the cultural and natural resources that embody and commemorate the Valley Forge experience and the American Revolution; and provide opportunities for enhanced understanding.*

The park's **significance statement** is based on the establishing legislation as well as on subsequent scholarship about a place or theme. It identifies the resources and values central to managing the park and expresses the importance of the park to our national heritage. Understanding what is nationally significant about a park helps managers make decisions that preserve the resources and values that were the basis for establishment of the park. Such decisions include setting resource management priorities and identifying interpretive themes and appropriate visitor experiences. A statement of significance focuses efforts and funding on the resources and experiences that matter most:

*Valley Forge National Historical Park is nationally significant as the location of the 1777-78 winter encampment of the Continental Army under General George Washington. Few places evoke the spirit of patriotism and independence, represent individual and collective sacrifice, or demonstrate the resolve, tenacity and determination of the people of the United States to be free as does Valley Forge. The historic landscapes, structures, objects, and archeological and natural resources at Valley Forge are tangible links to one of the most defining events in our nation's history. Here the Continental Army under Washington's leadership emerged as a cohesive and disciplined fighting force. The Valley Forge experience is fundamental to both American history and American myth, and remains a source of inspiration for Americans and the world.*

A park's **mission** is a vision for the future and articulates, in broad terms, the ideas that the NPS strives to achieve:

*Valley Forge National Historical Park educates the American people about one of the most defining events in our nation's history and preserves the natural and cultural resources that commemorate the encampment of the Continental Army at Valley Forge in 1777-78*

Park **mission goals** articulate in broad terms the ideal conditions the park and its partners will strive to attain. The alternatives described in Chapter 2 present differing ways in which the mission goals might be achieved:

### ***Mission Goal 1: Preserve Park Resources***

*Significant resources (cultural resources including landscapes, buildings, monuments, structures, archeological sites, artifacts and archives, and natural resources including biological, geological, water, and air resources) are preserved, rehabilitated, or restored; maintained in good condition; and managed within the broader ecosystem and cultural context. The NPS*

*contributes to knowledge about natural and cultural resources and associated values. Management decisions about these resources as well as about visitor use are based on adequate scholarly and scientific information.*

This mission goal encompasses the broad legislative mandate of the NPS to preserve significant resources, as well as the specific legislation that established Valley Forge NHP. It tells managers to consider the broader context of historical events while preserving and interpreting park resources. To respond to this mission goal, park managers and partners must clearly understand the park's significant resources and what resource conditions should be attained. The growing value of the park's natural resources must be understood in a regional context.

***Mission Goal 2: Provide for Public Use, Enjoyment, and Experience of the Park***

*Visitors understand and appreciate the history of Valley Forge. Visitors safely enjoy and are satisfied with the availability, accessibility, and quality of park programs, facilities, services, and appropriate recreational opportunities. Park visitors and the public understand and appreciate the preservation of parks and their resources for future generations.*

Visitors have better experiences in a park when they understand the significance of its story and resources. Information, orientation, interpretation, and education are park activities that help visitors discover the most significant meanings, and these activities help make connections between the tangible resources of the park and the intangible values and meanings that the resources represent.

Visitor safety and the quality of the visitor experience are affected by park programs, facilities, and services, whether provided by the NPS, nonprofit partners, or private entities. Convenient park facilities that do not harm or infringe on significant park resources, and services and interpretive opportunities that are available when visitors need them are important to enjoyment of the park. Also important is providing diverse services and facilities that enable appropriate activities for park visitors. Park facilities and resources should also be accessible and available to special populations, and recreational opportunities must be consistent with the park's purpose and significance and not harmful to resources or park visitors.

***Mission Goal 3: Strengthen and Preserve Natural and Cultural Resources and Enhance Recreational Opportunities Managed by Partners***

This national park system-wide goal generally applies to legislated partnership programs that assist non-NPS entities to preserve natural, cultural, and recreational resources. These programs, such as the Rivers and Trails Conservation Assistance Program, the National Landmarks Stewards Program, American Battlefields Protection Program, and many others are administered from central offices of the NPS, rather than by individual units of the national park system. Although Valley Forge NHP has no authority to administer these programs, partnership activities are highly important to the park. Park-based partnerships are incorporated in Mission Goals 1, 2, and 4.

***Mission Goal 4: Ensure Organizational Effectiveness.***

*Valley Forge NHP increases its operational capacity through cooperative efforts with public and private entities that share the park's mission to preserve park resources and interpret cultural and natural history.*

Partnership activities are essential to achieving the park's mission goals. Partnerships help to address the problems of insufficient federal appropriations and rising visitor demands. More importantly, however, they strengthen the interconnections between the park and its community. Partners bring new voices and new ways of looking at park goals and issues, thereby enriching the context for making decisions. Partnerships provide opportunities for individuals and organizations to become stewards of the park through contributions of time, labor, and ideas. Facilitating such connections to the park – beyond what a simple visit provides – builds a sense of ownership and advocacy that ensures long-term preservation of the park's resources. (See Section 3.8.4 for a description of current partnerships.)

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### **1.3 Purpose of and Need for Action**

Conditions in and around Valley Forge NHP have changed markedly since 1976, when it was transferred from the commonwealth to the national park system. The immediate surroundings have been fully developed, growing into the most traffic-choked area in the state, and causing daily conflicts in and around the park. The build-out of the region has left the park as one of the few large regional natural areas, heightening its value as both open space for people and also an important refuge for plants and animals. The increasing population – a 23% increase in Chester and Montgomery Counties since 1980 – has resulted in greater recreational pressure on the park. The planning process for this GMP has engaged the NPS and surrounding communities in understanding the change and cooperating on common goals in managing change.

Within the park, management has grown more challenging. Years of flat budgets (an annual compound growth rate of -0.54% since 1985) have resulted in fewer staff and less funding to care for all historic structures. Not all visitors have the opportunity to take part in interpretive programs and many are confused by the park landscape itself, in which the historic conditions are obscured. Recreational visitors find too little information or interpretation of the park's stories and resources. Invasive plants choke out native species within the forests and meadows. White-tailed deer are abundant in the region and prevent forest regeneration in the park. As a result of this GMP process and other reviews, however, the park already has initiated new ways of doing business to address some of these shortfalls. This GMP identifies additional strategies for preserving resources and enhancing their conditions to the highest degree possible, as well as strategies for providing rewarding visitor experiences to all visitors.

The public, stakeholders, the interdisciplinary GMP team, and the park's staff have raised many issues and identified opportunities that were considered as part of this planning process. Through public meetings, briefings, newsletters, and the park website, planning goals, issues, and concerns were discussed with the public and with other government agencies. (A summary of the public process is included in Chapter 5: Consultation and Coordination. Appendix B provides relevant



correspondence, and Appendix C lists the public comments received during scoping.) The issues and opportunities that reflect divergent points of view are summarized below as decision points and are the basis upon which alternative management strategies were developed.

### 1.3.1 Purpose of a General Management Plan/ Environmental Impact Statement

A GMP is periodically prepared for each unit of the national park system in order to help the NPS, in consultation with the public, decide what resource conditions and visitor experiences a park should provide and why. Each GMP defines the basic philosophy of park management and provides broad guidance to park managers, who make hundreds of decisions each year that can affect a park's resources and its visitors. The GMP sets direction for resource protection and visitor use, and the NPS adopts its findings and uses them to guide the management of a park for 10 to 20 years. In short, it tells park managers what they should be doing and why.

All GMPs are required to consider four basic elements:

- measures for **preservation** of the area's natural and cultural resources
- the types and general intensities of **facilities development** associated with public enjoyment and use of the area, including general locations, timing of implementation, and costs
- identification and implementation commitments for visitor **carrying capacities**
- potential **boundary modifications** and the reasons for them

This Draft GMP/EIS presents alternatives for the future management of Valley Forge NHP for public review and comment.

### 1.3.2 Decision Points and Planning Issues

Decision points are the major decisions to be addressed in general management level planning. They reflect substantially different viewpoints for the future management of park resources and visitors' experiences. While the park's mission, management goals, and other mandates set the parameters for the plan, various approaches to resource protection, visitor use, and facilities development are possible.

The following decision points are a distillation of the most relevant issues (concerns, opportunities, interests, expectations, and suggestions) that emerged as a result of studies completed in preparation for the GMP/EIS or that were identified through consultations with park staff and during public workshops and meetings with stakeholders (collectively referred to as project scoping). The decision points are the questions that this plan will consider through the development of alternative management concepts (alternatives), each offering a different approach to managing the site. The decision points reflect choices to be made and evaluated for their respective benefits, environmental impacts, and costs. By defining and analyzing these choices, the planning team identified the broad trade-offs among competing resource values and park experiences.

The decision points reflect only those issues that are appropriately addressed in general management level planning. A full list of other concerns, opportunities, interests, expectations, and suggestions that were identified during project scoping is

found in Appendix C: Scoping Summary and Analysis. The following decision points (as well as the alternatives presented in Chapter 2) are organized under each of the NPS mission goals. As previously mentioned, “Mission Goal 3: Strengthen and Preserve Natural and Cultural Resources and Enhance Recreational Opportunities Managed by Partners” does not apply at Valley Forge NHP, so decision points related to partnerships are addressed under Mission Goals 1, 2, and 4.

### **Decisions Related to Mission Goal 1: Preserve Park Resources**

#### ***How can the park’s cultural and natural resources most effectively be maintained, preserved, and/or restored?***

***What are the most appropriate management and use of the park’s historic buildings?*** The need for major repairs to 5 of the park’s 12 remaining encampment-period buildings led to the park’s designation as one of the “11 Most Endangered Historic Sites” by the National Trust for Historic Preservation in 2000; designation as one of the “10 Most Endangered National Parks” by the NPCA in 2002; and receipt of a “Save America’s Treasures” grant for emergency stabilization. Stabilization has started or is completed on most, but the needs of historic buildings are continual.



What are the most appropriate management and use of the park’s historic buildings, such as Knox’s Quarters?

While many of the encampment-period buildings have high value as interpretive sites, some are not suitable candidates for public interpretation because they represent duplicative interpretive stories (e.g., officers’ quarters), because it is not feasible to staff so many different buildings, and/or because they are located in isolated areas of the park.

Sixty-six of the park’s historic buildings were built after the encampment and do not relate to the park’s principal theme, yet the responsibility for their care and ongoing maintenance remains. Approximately 40% of these buildings are in poor or fair condition. Some of the historic buildings are used for park offices and storage, or as quarters for park staff. While this use keeps the buildings heated and prevents vandalism, the maintenance costs are not fully recaptured in rental fees, resulting in buildings that are not optimally maintained as well as a net loss in the park budget. To address these issues, the GMP will identify appropriate and self-sustaining potential uses for historic buildings. (See Appendix D for a complete list of proposed uses for park buildings, as well as their treatment and condition.)

***To what extent should the cultural landscape be restored, or are other means used to commemorate and depict important historic views and landscapes?*** One of the reasons for General George Washington’s selection of Valley Forge for the encampment was the strategic value of the area’s physical characteristics: easily defended high ground with long views that enabled him to see any approaching British troops; access to a navigable river and the ability to retreat across it; potable and fishable waters; woodlands for fuel and timber; and open terrain that provided sufficient space to shelter and sustain the encamped army. Despite 228 years of change, many of these landscape characteristics still are present.

The encampment desolated the landscape: farm fields became muddy, eroded campsites; wood lots, forests, and fences were cut down for timber for huts and firewood; and houses and barns were occupied as military quarters or storage. As soon as the Continental Army left, residents began to reclaim the land for farming.

On a visit 10 years after the encampment, Washington noted with approval that the huts were gone, the fortifications stood in ruins, and the fields that had been ravaged by the encampment were now returned to productive agriculture. In the 19th century, encampment-period houses were enlarged and farmsteads developed into gentlemen's farms in the southwest corner and western side of what is now the park.

Industry has also left its mark at Valley Forge, particularly along the river. The industrial Village of Valley Forge prospered as a manufacturing center, and the Village of Port Kennedy thrived as a center for quarrying: a dozen dolomite quarries were dug through the center of what had been the Grand Parade. The Schuylkill Canal, with its attendant dams, changed the river's flow regime, ultimately leading to the loss of Fatland Island, the landing point for Sullivan's Bridge. The canal was later replaced by the Reading & Philadelphia Railroad, whose embankment eliminated access to the river as well as the historic view of the river from the Washington's Headquarters area. On the north side, the Pennsylvania Railroad effectively cut in half the historic Meadow Grove, Walnut Hill, and Fatland farms.

After the site was established as a state park in 1893, change continued as the State Park Commission developed the park with the dual but conflicting goals of re-establishing the encampment-period landscape and creating a beautiful, commemorative park landscape. Encampment-period structures were rehabilitated, although not always to their historic conditions, and many post-encampment buildings were demolished, including most of the outbuildings that characterized historic farmsteads. Farm roads in the park were widened, and new park tour roads were added along the lines of, and sometimes on top of the fortifications and archeological remains of huts. Monuments were erected to commemorate the brigades of the encampment. Forests were replanted, although not in the patterns or with the species that prevailed at the time of the encampment. Today those forests provide important natural habitat but obscure some historic vistas. Commemorative groves of trees also were added. Park facilities such as a visitor center, restroom buildings, recreational trails, and maintenance buildings were added. The historic villages of Valley Forge and Port Kennedy were largely demolished for the creation of a suitable park landscape.

About 800 acres, or one-fourth, of the park lie north of the Schuylkill River. Although this area was a vital part of the encampment, this land was not incorporated into the park until the last quarter of the 20th century. Most of the historic structures in this area are gone or in poor condition. Some of the land continues to be farmed, while other parts are managed as meadow. Much of the land has returned to old field or forest, and riparian wetlands are found along the Schuylkill River. Prior to the land's establishment as a park, two large impounding basins for removal of coal silt from the river were constructed. Rights-of-way for a railroad (the corridor now is a multi-use trail), a natural gas pipeline, and a high-tension power line were cut. The four-lane, limited-access US 422 was built. No commemorative elements or signage have been added to the north side, making it difficult for visitors to distinguish this area as park land.

After more than two centuries of change since the encampment, the elements of the cultural landscape that remain intact at Valley Forge NHP are the terrain, the water courses, and the archeological resources. The commemorative layer obscures the 1778 landscape on the south side, and regrowth and highway and utility corridors obscure it on the north. Heavy commuter traffic and active recreational use further



The commemorative park landscape, although beautiful, is difficult for visitors to envision as a military encampment.



The north side was not developed for park uses and is difficult for visitors to distinguish as part of the park.

blur the historic scene. Ever-present noise and light pollution also alter the character of the landscape. Beyond the park boundary, high-rise buildings and cell towers fill the views that extended to the horizon when General Washington and his troops wintered here. As a result, visitors find it difficult to understand what happened here. The GMP must determine if selective restoration of the encampment landscape is desirable or feasible; what form of commemorative landscape is appropriate; and how the landscape of the north side can be made recognizable as part of the encampment yet retain its natural resource values.

***How can the park's collections and archives best be protected and maintained?***

Historic objects include a remarkable collection of weapons, personal effects of soldiers, and furnishings. The park archives contain rare 18th century manuscripts, broadsides, pamphlets, books, and artifacts, as well as the archival records dating from the early efforts to establish the park, through to today. The park also owns significant archeological collections, most importantly from extensive archeological work in the brigade areas of the historic encampment. The potential for these collections to grow through future excavation is great.



The park preserves a remarkable collection of artifacts and documents, yet little of the collection is accessible to visitors.

Less than 5% of the park's large and significant collection of historic objects related to the encampment is on display for the public to see. The military collection is well housed. Furnishings, archives, the library and slide collections, archeological artifacts, and the natural resource collection are stored in seven places around the park. In five of the storage areas, the lack of appropriate temperature and humidity controls and the inadequate fire and security protection threaten the collection's long-term preservation. Additionally, because the collection is so dispersed, it is difficult to deploy staff in a way that enables visiting researchers to use the collections. What physical measures need to be taken to adequately protect the collection and allow for its growth?

***To what extent should the park manage its natural resources so that they are restored to a healthy ecological balance?*** Under the 1982 GMP, management of natural resources for their own inherent values was not considered. In the decades since that GMP was completed, NPS policies have changed and now recognize that natural resources – even in a park designated for its historical significance – are inherently important. Additionally, the NPS has funded and carried out inventories and assessments of key species and natural systems, which provide a thorough understanding of the park's environment that was not available when the national park was established.

Valley Forge NHP is one of the largest contiguous, protected open spaces in southeastern Pennsylvania. It has become an important habitat island that retains a remarkable level of biological diversity. The conversion of surrounding lands to roads and parking lots, housing, office complexes, and shopping malls has severely reduced the quantity and quality of wildlife habitat in the region, thereby increasing the value of these remaining acres. For species that migrate, the park functions as an island oasis in a sea of sprawl; for species that cannot migrate to another habitat, the park is essential for their existence and perpetuation.

About 34% of the park is forested, while the remaining vegetative cover is managed as tall grass meadow, rough lawn, or agricultural field. There are about 5 miles of riparian buffer and about 80 acres of wetlands. Each of these is a high-value habitat, not only due to their inherent characteristics but also because they occur in relatively large units, with few roads or other intrusions that break their continuity. These habitats support over 1,000 species of flora and fauna, including over 220 bird species, 29 species of reptiles

and amphibians, 35 fish species, and over 740 plant species. Federally listed endangered and threatened birds migrate through the park. Facilities development such as new roads, trails, parking lots, or structures could disrupt the continuity that gives these habitats their high value, if not carefully considered and sited.

Additionally, some of these high-value habitats already are threatened. Data and observation indicate that heavy browsing by white-tailed deer is changing the tree and shrub composition of woodlands and is preventing the regeneration of the forest (Heister 2000). State-listed endangered, threatened, and rare plants are barely surviving due to deer browsing. Many invasive, non-native plants such as Japanese honeysuckle and knotweed offer little value to wildlife but thrive in disturbed areas and replace high-value native species. The park's tall grass meadows provide habitat that is increasingly rare in the region, but invasive species also are taking over the meadows, threatening their value as habitat for ground-nesting birds. To address these issues, the GMP must determine the best way to protect and perpetuate the biological diversity and natural processes of species that inhabit or visit the park and how we manage landscapes that are essential habitats for these species.

***Should park meadows continue to be managed as an interpretive landscape or should management for their habitat value be considered?*** For a century, the park's unforested lands were maintained by park managers as fine lawn. Before World War I, grazing sheep kept the grass cut, and as the park was enlarged, mechanical mowing was instituted. At the peak of mowing, 1,050 acres were mown each week. Such maintenance required numerous staff, and the purchase, fueling, and maintenance of a fleet of mowers. Frequent mowing results in what is sometimes called a "biological desert," because lawn grass is not a natural habitat and provides no shelter or food for native birds, mammals, amphibians, and reptiles.

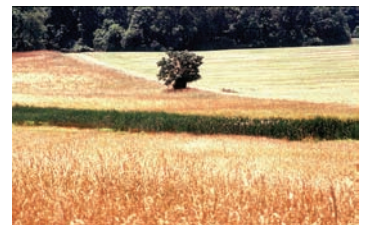
A *Field Management Plan* for the park was developed in 1992 (Valley Forge NHP). Its purpose was not only to enhance the environmental values of the open lands but also to use tall grass meadows interpretively to suggest the small-grain agricultural fields that were present at the time of the encampment. Approximately 525 acres were selected to be managed as tall grass meadows, which are grasslands mowed only once a year. Within the meadows, regularly mowed strips delineate the historic boundaries of farm fields present during the encampment.

A decade after implementation of the plan, many species of plants and animals new to the park have been recorded, including some state-listed species. Other than annual mowing, no management practices are applied, however. Because of the increasing presence of exotic, invasive plants, it may not be feasible to sustain the meadows simply by mowing. As of 2005, 914 acres are managed as meadow. A decision must be made as to more active management that would encourage native grasses and control invasives, while maintaining the interpretive function of the meadow as a cultural landscape feature.

***Most park surface waters originate well beyond park boundaries. Should waters within the park be managed through a watershed approach (i.e., involvement with outside partners) or through park-wide applied techniques?*** Valley Creek is a high-quality spring-fed stream served by a 23-square-mile watershed. The park lies at the bottom of the watershed, and only the last two miles flow through the park. The stream holds the highest value classification from the Pennsylvania Department of Environmental Protection (DEP) and the Pennsylvania Fish & Boat Commission: a Class A Trout Stream as well as an Exceptional Value waterway, respectively. The



Invasive non-native plants, such as mile-a-minute vine, replace high-value native plant species and destroy habitat.



Large tall grass meadows provide excellent habitat for native animals but need active management if they are to be sustained.

DEP also has identified Valley Creek as an impaired stream [303(d)] for polychlorinated biphenyls (PCBs), turbidity, sedimentation, nutrients, and flow alteration, however.

Approximately 25% of the watershed is developed, and the large amounts of impervious surface upstream result in huge bursts of stormwater runoff that scour the stream banks within the park, threatening water quality, adjacent roads, and historic resources. Development also brings pollutants including sediments, pesticides, and excess nutrients. Any reduction in normal water flow could lead to rising water temperatures, further affecting the stream's habitat values.

The park is a co-trustee with the Pennsylvania Fish & Boat Commission in administering a plan to restore angler use that had been lost to contamination. Additionally, the park works with the Valley Creek Restoration Partnership on projects and protection issues as they arise.



What is an appropriate park role in contributing to the health of the Schuylkill River?

Three miles of the 130-mile-long Schuylkill River flow through the park. The Schuylkill is a Pennsylvania Scenic River, has significant aesthetic and recreational values, and is a source of drinking water for the metropolitan region. Most of its 1,916-square-mile watershed lies upstream of the park. While much less of the watershed is developed than that of Valley Creek, the river's water quality is poor, and it is contaminated by agricultural and acid mine runoff and other industrial and septic contaminants. The park holds no authority or responsibility to manage the waters of the river; however, the NPS as a whole has made a commitment to environmental leadership. Beyond management of park lands in ways that do not contribute to additional degradation of the water, is there a feasible and appropriate role to play as a partner in advocacy?

***What is the best way to manage the former impounding basins?*** For over a century, the Schuylkill River was characterized by murky black water - millions of tons of coal silt washed from mines and spilled from the Schuylkill Canal and later the rail cars that carried anthracite from north of the Blue Mountain. In 1947, the commonwealth of Pennsylvania initiated one of the first clean-water projects in the nation by acquiring the remnants of the Schuylkill Canal, towpath, and remaining canal dams. The banks of coal silt that had accumulated along the length of the river were excavated and removed. Several old canal dams also were removed so that the river could scour the accumulated sediment, and 22 immense impounding basins were constructed along the river. Dirty water was pumped from the river into the basins, the coal silt settled to the bottom of the basins, and newly cleaned water was pumped back into the river. This method, coupled with the decline of coal mining, was remarkably successful, and the project was completed in the 1970s.



The former impounding basins represent a remarkable conservation story and contain high-value vernal ponds. What is the most appropriate way to preserve these values?

Two of the impounding basins lie within park boundaries on the north shore of the river, covering 135 acres of what once were lush meadows on the Meadow Grove and Walnut Hill farms (see Figure 1-2). The Draft National Register of Historic Places (National Register) Nomination for the park indicates that the basins possess state-level significance for their contribution to conservation history (John Milner Associates, Inc. 2003). Only the southernmost basin was ever used for desilting. Just before transfer of the land to the federal government, the commonwealth excavated most of the coal silt in that basin for use in coal-fired power plants. The natural contours and drainage were not restored; however, serendipitous high-value wetlands have formed in the depressions left by the excavation. Today, inappropriate use of the area by off-trail bikers is harming the wetlands as well as causing erosion of the basin walls.

The commonwealth established a pine plantation in the upper basin, which is in declining condition. The massive stone rubble walls, comprising 390,000 cubic yards of stone, remain around both basins, limiting the visitor use of the area and blocking historic views to and from the river. The basins greatly altered the encampment-period historic landscape yet have value in their own right. What is the most appropriate management of these basins to preserve their cultural and natural values?

## **Decisions Related to Mission Goal 2: Provide for Public Use, Enjoyment, and Experience of the Park**

***What are the best ways to provide excellent experiences for all types of visitors, while avoiding adverse impacts to cultural and natural resources?***

***What are the most appropriate and effective interpretive experiences park-wide?*** The 2002 replacement of the exhibits in the park Welcome Center provided much-needed excitement and educational content. The new exhibit placed the encampment within the context of the Revolutionary War so that visitors can understand why it took place and how crucial it was to the course of the war. Marvelous historic objects were placed on display for the first time, illustrating daily life in the encampment.

Much remains to be accomplished, however. The museum experience must be better connected to experiencing the site of the encampment. Scheduled interpretive programs are provided at only one site in the park, and guided tours of the park are only available on a seasonal basis. Visitors who follow the automobile tour route on their own find little reason to leave their cars and have only the park map (and a cassette or CD audio tour, if they purchase one) to guide them, which provides little explanation of what they are seeing. Too few programs are available from a small interpretive staff: visitor services staff has fallen by 55% since the 1980s, and seasonal staffing has been cut back as well. Ranger-conducted programs and educational programs reached only 34,900 visitors and students in Fiscal Year (FY) 2005, or about 3% of park visitors. Most visitors leave the park without a full understanding of the encampment or its significance. What is the best way to connect visitors to the story and to the land itself?



Little interpretive programming is available, so most visitors leave without understanding the story or significance of the park and its resources.

The park's most remarkable resource may be its rich and extensive archeology. Recent work revealed that the archeological record of most, if not all, of the brigade areas is intact just below the trails and fields on which visitors stroll, jog, and bike. In addition to adequately researching and preserving these hidden resources, visitors must be enabled to engage with them and the excitement of discovery.

Additional stories and themes that would provide better historic context for the encampment remain to be told, particularly those of the local residents who bore the brunt of first the British invasion and then, the Continental Army's six-month encampment. The stories of African-Americans, American Indians, and others who were present also need to be told. The natural resources of the park, although a primary part of a typical visitor experience, are not effectively communicated or interpreted. Park resources also represent the stories of early industry, particularly iron-making, lime-kilning, and early transportation, none of which are told. Decisions must be made concerning how all the important stories can be accommodated, including the natural heritage of the park, and how the park can provide better opportunities to visitors to learn about and appreciate the cultural and natural significance of Valley Forge.

***To what degree should an interpretive experience be provided to all visitors?***

Unlike the case at most national historical parks, the typical visitor to Valley Forge NHP comes frequently and comes for recreation. The challenge for the park is to meet these visitors "where they are" and provide meaningful historical and natural interpretation at times and in forms that are attractive and convenient.

Approximately 80% of visitors come to the park for recreational pursuits such as walking, biking, boating, fishing, horseback riding, and picnicking. Surveys show that most are aware that "something historic" happened here and feel that the historic ambience provides a pleasant backdrop for recreational activities. During the planning process for this GMP/EIS, numerous participants who use the park for recreation noted that there is little interpretive information or programming available to them. They asked for information and interpretive programs that would allow them to understand the park's history and significance.



What are the best ways to reach out to recreational visitors with engaging programs and services that can enrich their visits?

This need was documented by the 2001 Visitor Survey (University of Idaho 2002), which showed that there is a very high rate of repeat visitation to the park: 68% of respondents had visited more than once, with 31% visiting several times a month. The survey confirmed that even among visitors who come to the park for outdoor recreation, there is a strong sense of connection to the park's historic values. What are the best ways to reach out to recreational visitors with engaging programs and services that can enrich their visits?

***What types of visitor facilities are appropriate in order to provide for education in the park?*** Valley Forge NHP was established by the U.S. Congress "...to preserve and commemorate for the people of the United States the area associated with the heroic suffering, hardship, and determination and resolve of General George Washington's Continental Army...." While Congress' express intention was that visitors experience and learn about history, Valley Forge also has been popular for recreation since the early 19th century. During Valley Forge's 83-year tenure as a state park, facilities were established to serve both cultural and recreational visitors. Since its establishment as a unit of the national park system in 1976 however, there has been little capital investment. The GMP/EIS planning process has provided an opportunity to assess visitor experiences and facilities for their effectiveness and



relevance today. Particular attention has been paid to interpretive and educational needs. Therefore, this GMP presents alternatives for the management of key interpretive sites in the park.

***What level and types of visitor uses and facilities are appropriate in order to provide for and manage recreational demand without damage to the cultural and natural resources of the park?*** Recreational use is traditional at Valley Forge NHP and will continue. The types of recreational use have changed markedly over the years, and the level of use has intensified, particularly in recent decades.

The range of recreational uses will continue to include passive recreation such as picnicking, strolling, and bird-watching; mid-range use such as fishing; and active use such as boating on the Schuylkill, jogging, and bicycling. The challenge is to come to a consensus on several questions: what is the level of use beyond which cultural or natural resources are damaged? What are the most appropriate locations for recreational uses in order to avoid resource damage? Which commemorative areas of the park should be free of active recreation, and how can this be communicated? How can recreational uses be sustained and user conflicts reduced without the necessity to construct more support facilities such as parking lots and paved trails, with their attendant resource impacts?

*Trail Systems.* Most of the current conflicts are experienced by trail users (see Figure 3-6 for a map of current trails). The 6.5-mile paved multi-use trail on the southern side of the park, the Joseph Plumb Martin Trail, is very popular. Originally constructed to provide an alternative way to tour historic sites, the trail is currently used most by recreational visitors. On fine weekend days, the trail can become clogged as hikers, joggers, bicyclists (both slow and fast), families with small children and baby strollers, and people walking at a leisurely pace all compete for space. There are occasional accidents between disparate types of users. Accidents also have occurred when bicyclists use the tour roads or the very busy public roads through the park.

North of the Schuylkill River, a two-mile section of the regional Schuylkill River Trail was completed on a former railroad right-of-way through the park in 2002. The trail now extends from Fairmount Park in Philadelphia 25 miles to Oaks, north of the park. A photo-cell counter on the trail showed up to 280,000 users in 2003, and the rate of use was higher during the first six months of 2004. The popularity of the new trail has overwhelmed the capacity of the park's Betzwood parking lot, which also is used by people launching boats and/or picnicking at Betzwood. There is observation and anecdotal evidence that shows the same conflicts among different types of trail users as seen on the Joseph Plumb Martin Trail on the south side.

In addition to the two paved trails, there are 19.5 miles of designated unpaved hiking, horse, and/or bike trails in the park. These trails are primarily located in forested areas and on moderate to steep slopes. Trails on slopes are prone to erosion, and although regular maintenance can prevent most damage, some park trails are simply unmaintainable. Off-trail use is prohibited in the park, yet the increasing illegal use of mountain bikes on and near some of the steep trails has exacerbated soil erosion and caused the displacement of steps and other historic features. Additionally, individual off-trail bikers have illegally cut about 15 miles of personal routes through forests and meadows, damaging natural and archeological resources.



Although there are many miles of trails in the park, off-trail use damages vegetation and archeological resources and causes erosion. How can the demand for more trails be accommodated within the mandate for resource protection?

The *Trails Assessment for Valley Forge National Historical Park* (The Olmsted Center for Landscape Preservation 2003) developed recommendations for each trail in terms of sustainable use (e.g., hiking, horse, and/or biking), maintenance of the existing trail, or if necessary, rerouting or closure of sections that cannot feasibly be maintained. The assessment also provided suggestions for establishing connections that would make loop trails available. Public workshops focused on trails and recreation were held as part of the GMP planning process; these generated additional information and ideas. Trail recommendations are incorporated in this GMP/EIS.

The population of Chester and Montgomery Counties, the counties from which most park visitation is drawn, is projected to grow respectively by 26.9% and 14.6% by 2025 (DVRPC 2000). In addition, Chester County hopes to connect its expanding bike trail system to the park (as Montgomery County already has done), and it can be expected that the rate of bicycle use in the park will grow. Bicycling is a good way to see the park, and the more that visitors arrive by bicycle, the fewer automobile-related impacts will be present, including parking conflicts, conflicts between automobiles and other users, noise, and emissions that pollute air and water.

To address these issues, this GMP includes proposals for a sustainable park-wide system of hiking, horse, and bike trails. It identifies means by which trail users can be safely accommodated, while avoiding impacts to archeological resources, the historic landscape, and natural resources that additional paved trails might present.

*Parking Facilities.* As noted above, approximately 80% of current park visitation comes for outdoor recreation, and most of the demand for parking in the park is to support recreation. In anticipation of the 1976 Bicentennial of the Declaration of Independence, the commonwealth enlarged existing parking lots and constructed a number of new lots. The size and location of the lots no longer conform to current patterns of use, however. At Betzwood, for example, parking capacity is exceeded early each weekend morning. A parking lot on Yellow Springs Road that serves the Mount Misery trail system also regularly fills to overflowing. Expansion of those lots would cause adverse impacts to cultural and natural resources, however. Other parking lots are essentially empty all the time, such as the upper lot at Washington's Headquarters and the Tower Road, Huntington's Overlook, and Conway's Overlook lots. This GMP presents alternatives for parking appropriate to future use of the park.



The park provides a landing for the Schuylkill River Water Trail, enabling a quiet day on the river.

*Other Recreational Uses.* Some visitor uses were established while Valley Forge was a state park. There is a boat launch at Betzwood, one of three available launches for this particular pool of the river. In calendar year 2001, 2,129 boats were launched from this point. Use is highest in summer months, which see the heaviest demand not only from boaters, but also from picnickers and bicyclists, who all compete for parking on the narrow floodplain here. At Pawlings Road, there is the potential to work with Montgomery County to combine the park's existing parking lot with a future county canoe launch, creating an additional landing for the Schuylkill River Water Trail.

Group picnics have been held at Valley Forge since the mid-19th century. Because picnic areas in the park cannot be reserved, and there is no shelter, this use has been declining. (Only 16 groups sought permits in 2003.) The most popular picnic site (Wayne's Woods) is located in a key historic area. This GMP considers whether this special use is appropriate for the park, and how it would be supported through facilities.

The Valley Forge Signal Seekers, a model-airplane club, hold a special-use permit to use approximately seven acres of a parking lot and field located where PA Route 252 crosses the Pennsylvania Turnpike. About 7,000 users were reported by the club in calendar year 2001. This is the only part of the park dedicated to a single group. This GMP considers whether such exclusive special use is appropriate for the park.

***To what degree can the impacts of heavy commuter traffic in the park be lessened while still providing appropriate access for visitors and facilitating better traffic conditions around the park?*** Valley Forge was a strategic location for General Washington, and it remains a strategic location for transportation, commerce, business, and industry. The park is located in one of the most heavily trafficked regions in Pennsylvania, and most of the historic roads in the park are open to through-traffic. The choked conditions of many of the roads surrounding the park make the roads within the park attractive as alternative routes. Year 2002 traffic counts from the DVRPC show that about 4.7 million vehicles a year travel the 3-mile length of historic PA Route 23 through the park. Most of this is commuter or through-traffic, rather than destination-traffic related to visitation to the park. PA Route 252, which winds along Valley Creek, handles an average annual daily traffic volume (AADT) of 6,500 vehicles. The AADT for PA Route 23 at Washington's Headquarters is 15,600 vehicles. Gulph Road, which bisects the center of the park, handles an AADT of 2,900 vehicles (DVRPC 2005).

These "walls of traffic" effectively cut off certain areas of the park from the core area and conflict with bicyclists and slow-moving vehicles driven by visitors who want to see the park. The reconstruction of the Betzwood Bridge across the Schuylkill River will bring many additional thousands of vehicles a day into the park, with attendant noise and air pollution. Which of the options for reducing traffic in the park proposed by the recent *Valley Forge Area Transportation Planning Study* (Boles Smyth Associates 2002) would best protect cultural and natural resources, enable high-quality visitor experiences, and contribute to the unsnarling of the region's knotty traffic problems?



How can the basic conflict between heavy through-traffic and visitor use be resolved?

The specific issues that must be addressed by this GMP include

- traffic congestion and resulting impacts in the park
- safety
- future traffic demands from surrounding communities
- future traffic and access demands from increasing park visitation
- conflicts between vehicular traffic and other park users
- opportunities for alternative transportation

Through a series of interagency coordination meetings in 2003 and 2004, the GMP team developed a transportation-specific description of purpose and need that might be used for future programming and implementation through the state and local Transportation Development Process. The purpose of the transportation elements to be considered in the GMP/EIS is to

- help meet the mission goals of Valley Forge NHP for resource protection, visitor experience, and opportunities for enhanced understanding
- help meet the evolving transportation demand related to future park activities
- recognize and complement, where possible and appropriate, the transportation needs of adjacent communities and of the region while helping to meet park-related transportation needs

The need for the transportation elements to be considered in the GMP/EIS is to

- reduce current traffic congestion and impacts in the park
- address factors which affect safety conditions
- help remedy potential impacts of future traffic increases from growing park visitation, as well as development in surrounding communities
- help remedy impacts which could affect access for the park
- minimize conflicts between through-traffic and visitor activities
- limit vehicular/bicycle/pedestrian conflicts
- reduce constraints on alternative transportation opportunities

Appendix E provides a detailed discussion of the transportation purpose and need.

***What are the most effective means to provide visitor access to the north side of the park, while protecting cultural and natural resources?*** The north and south sides of the park are separated by the Schuylkill River (see Figure 1-2). Because the north side was not developed as a commemorative landscape such as the south side, many people do not realize that it is part of Valley Forge NHP. Interpretive programming is offered only sporadically, and no buildings are open to the public. There is no direct, park connection between the two sides. Visitors on foot or on bicycles can cross between the two sides by using a temporary boardwalk attached to the US 422 bridge: a frightening experience at best. Visitors in vehicles must leave the park and

follow a circuitous route that is difficult to navigate. This GMP presents alternatives for physical and programmatic means to better connect the two sides of the park.

## Decisions Related to Mission Goal 4: Ensure Organizational Effectiveness

### *To what level should the park further its partnerships and cooperative actions to better protect and interpret park resources and values?*

***What is the appropriate role of fees and earned income in funding resource preservation and interpretive services, and allowing cost recovery for public use of the park?*** The current fee structure in the park is widely regarded as inequitable and ineffective. Visitors who use the park for recreation are not charged any fee. The only visitor fee is assessed on people who wish to visit Washington's Headquarters. Fees also are collected for special park uses such as commercial photography, film-making, weddings, walkathons, and other organized activities. In general, the cost to collect such fees is about equal to the revenue.

Valley Forge NHP is responsible for managing a large number of historic and modern buildings, yet only two buildings are leased out to provide revenue to the park. The historic Kennedy-Suplee mansion was leased for use as a restaurant, and the park owns and leases out the building used as the Valley Forge post office. New federal regulations provide a number of avenues through which leasing could be used to support the high costs of maintaining park structures. This GMP explores potential leasing of park structures (see Appendix D).

Providing services that make the park an interesting and safe place to visit costs money. The park's congressionally appropriated base budget has grown from \$2.93 million in FY 1985 to \$5.25 million in FY 2004. After adjusting for inflation, however, the base budget has decreased 11.5% since 1985. This equates to an annual compound growth rate of -0.54%. Uncontrollable costs, primarily personnel costs mandated by civil service and other reforms, have increased significantly in recent years. Since FY 1996, the average labor cost per full-time equivalency (FTE) for base funded positions has increased by 51.5%, from \$42,709 per FTE in FY 1996 to \$64,704 in FY 2004. This means it has become increasingly difficult to provide interpretive programs and exhibits; keep historic buildings in good repair and open to the public; maintain restrooms, roads, and trails; sustain natural resources; and provide round-the-clock law enforcement patrols. Federal dollars will continue to fund a basic level of service but no longer are adequate to meet the park mission of education and preservation or to meet visitor expectations. This GMP/EIS introduces the concept of fees that are equitably balanced among different types of park experiences and that reflect the true costs of providing services.

### ***What are the most effective uses of partnerships in achieving the park's mission?***

Park management recognizes that partnerships bring new perspectives and broaden the constituency of the park. Valley Forge NHP is well situated to take greater advantage of existing and potential partnerships. The park already benefits from many individuals and organizations that contribute time, expertise, and ideas to the park. These established partnerships result in better communications; better cultural, natural, and recreational resource management; and better visitor services than park staff would be able to provide on its own (see Section 3.8.4 for a list of current partnerships). The large number of partnerships is due both to the park's location in a heavily populated area and also to the variety of opportunities the park provides that meet many different areas of interest.



What is the appropriate role of earned income - such as leasing unused park buildings - in funding resource preservation and visitor services?



How can partnerships and volunteers be most effectively used in meeting the park's mission?

During the planning process for this GMP, it became clear that a great deal more can be accomplished through partnerships. Planning process participants expressed the hope that the park will take on new or stronger roles in interpreting a greater range of stories; in presenting more kinds of interpretive programs; in reaching non-traditional visitors; in making interpretive and programmatic connections to regional historic sites and natural sites; in managing natural resources at ecosystem level; and in connecting and managing trails on a regional scale. Participants feel a strong connection to the park and would like to contribute to these goals.

Partnerships with organizations that share common interests with the park are a logical, and perhaps the only, means to accomplish such mission-related initiatives. Partnerships can multiply the efforts of the shrinking number of park staff, yet they need to be facilitated by staff in order to be most effective. The staff as a whole must be reorganized to utilize and manage partnerships as a priority. This GMP presents strategies to maximize opportunities for community involvement in fulfilling the vision for the park.

Partnerships with related sites also have potential. The Philadelphia Campaign of the Revolutionary War lasted 10 months and stretched across what are now Chester, Delaware, Montgomery, and Philadelphia Counties. There are numerous sites that represent important parts of the larger story, ranging from road traces to campsites, houses and barns, and battlefields. Some sites are open to the public and their stories are interpreted; however most sites are known only to enthusiasts. Most sites, including Valley Forge NHP, do not do the best possible job in conveying how each represents an interconnected part of the campaign. There is growing interest among managers of the sites and supporters of heritage tourism in sharing strengths in interpretation and preservation. This GMP presents alternatives for park participation in future joint initiatives.

The resources of Valley Forge NHP also represent stories that post-date the encampment. Historic industries (iron-making, textiles, quarrying); early innovations in agriculture; historic transportation (river rafting, canal, and railroad); and natural history are prominent secondary themes for the park. The Schuylkill River National Heritage Corridor has issued a challenge for coordinated visitor services and interpretation among cultural and natural sites in the 100-mile-long corridor.

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## 1.4 Impact Topics Analyzed

Based on the above decision points, planning issues identified during scoping, and analysis of existing resources at Valley Forge NHP, the following impact topics are considered and fully analyzed in Chapter 3: Affected Environment and Chapter 4: Environmental Consequences of this document. For a detailed description of these resources, please refer to Chapter 3.

### *Cultural Resources*

- Cultural Landscapes
- Historic Buildings and Structures
- Archeological Resources
- Archives and Collections

### *Physical and Natural Resources*

- Physiography, Topography, and Geologic Resources
- Soils
- Surface Waters and Groundwater
- Floodplains
- Wetlands
- Vegetation
- Wildlife
- Rare, Threatened, and Endangered Species (presented separately in Chapter 3: Affected Environment, but potential impacts are considered under the Vegetation and Wildlife sections in Chapter 4: Environmental Consequences)
- Air Quality
- Soundscapes
- Lightsapes

### *Visitor Use and Experience*

### *Socioeconomic Environment*

### *Transportation and Site Access*

### *Park Operations*

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## **1.5 Impact Topics Considered but Dismissed from Further Analysis**

The following impact topics were identified and dismissed from further analysis because they do not exist at Valley Forge NHP or would not be impacted by the proposed actions. They include ethnographic resources, Indian Trust resources, and environmental justice. A brief rationale for the dismissal of each impact topic is provided below.

### **1.5.1 Ethnographic Resources**

Ethnographic resources are defined as any “site, structure, object, landscape, or natural resource feature assigned traditional legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it” (Director’s Order #28). No specific sites, structures, or objects at Valley Forge NHP have been identified as ethnographic resources; therefore, the impact topic of ethnographic resources was dismissed. In the unlikely event that human remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act of 1990 (25 USC 3001) would be followed. See Chapter 5: Consultation and Coordination for a summary of the ongoing tribal coordination.

### **1.5.2 Indian Trust Resources**

Secretarial Order 3175 requires that any anticipated impacts to Indian Trust resources from a proposed project or action by department of the interior agencies be explicitly addressed in environmental documents. The federal Indian Trust responsibility is a legally enforceable obligation on the part of the United States to protect tribal lands, assets, resources, and treaty rights, and it represents a duty to carry out the mandates of federal laws with respect to American Indians, Alaskan Natives, and Native Hawaiians. There are no known Indian Trust resources at Valley Forge NHP, and the lands comprising the park are not held in trust by the secretary of the interior for the benefit of Indians due to their status as Indians. Therefore, the impact topic of Indian Trust resources was dismissed.

### **1.5.3 Environmental Justice**

Executive Order 12898, “General Actions to Address Environmental Justice in Minority Populations and Low-income Populations” requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing the disproportionately high and/or adverse human health or environmental impacts of their programs and policies on minorities and low-income populations and communities. No minority or low-income populations are located adjacent to the park, so the proposed management objectives and potential actions would not affect these populations, being confined to federal land and the immediately adjacent neighborhoods. Therefore, the impact topic of environmental justice was dismissed.



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## 1.6 Relationship to Other Studies and Planning Projects

The park's location in a densely developed area means that park planning must interlock with planning for other jurisdictions. Following are the most important planning and implementation initiatives that influenced the GMP/EIS planning process.

### 1.6.1 Asbestos Release Site

In the early 1800s, a limestone industry thrived with the excavation of limestone mines and construction of kilns west of the Port Kennedy area, on the former Grand Parade. These kilns were used to superheat the limestone for use in agriculture. From 1824 to 1835, a canal along the Schuylkill River and a railroad between Reading and Philadelphia provided transportation for commercial trade. The railroad built a spur in 1859, which ran along what is now County Line Road.

From 1877 to 1895, the Ehret Magnesia Company consolidated individual quarry operations from small companies and individuals. Between 1890 and 1895, the company began manufacturing asbestos pipe insulation material in a factory constructed in one of the former quarries.

The commonwealth of Pennsylvania established Valley Forge State Park in 1893. During the 1930s, the factory created a serious pollution problem for the state park by dumping carbonate and lime waste. The construction of a waste ditch led to an obstruction of normal drainage patterns through the Grand Parade and destruction of many trees and other vegetation. The factory also disposed of waste slurry by pumping the material into quarries within state park boundaries. During the 1960s, the Ehret Magnesia Company was sold to Keene Corporation. Keene Corporation continued the asbestos manufacturing until the early 1970s, when the factory closed.

In January 1997, during the installation of a fiber optic cable in the Amphitheater Quarry of Valley Forge NHP, park staff discovered a suspicious substance in the soil that was later confirmed to contain asbestos. At the request of the NPS, the U.S. Environmental Protection Agency (EPA) initiated an emergency response action between May and October 1997 to abate the immediate risks to public health, welfare, and the environment posed by contaminated soils. The impacted area is referred to as the Valley Forge Asbestos Release Site (ARS). The ARS is currently being investigated so that a long-term remedy can be implemented. The area of contamination is approximately 112 acres, divided into two operable units (the Former State Lands unit and the Former Keene Plant unit), and further divided into 15 Areas of Concern (AOC) (Figure 1-3).

While a primary contaminant at the ARS is asbestos, contaminants other than asbestos also have been detected, including arsenic, lead, polycyclic aromatic hydrocarbons (PAHs), and PCBs, among others. NPS is the lead agency for Site remediation under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

In November 1999, the NPS signed an agreement with the commonwealth of Pennsylvania to prepare a Remedial Investigation/Feasibility Study (RI/FS) for the Site. The RI/FS further characterizes the ARS by identifying the vertical and

horizontal extent of contamination and develops detailed alternatives for cleanup. The Final RI Report was completed in February 2005, and a final draft FS Report was provided for NPS review in February 2006. Following completion of the RI/FS, NPS will provide for public involvement in developing a preferred alternative for cleanup. A Record of Decision (ROD) will be prepared to document public participation and the decision to select the final remedy for the ARS.

With approval of the ROD and appropriate funding, implementation of the selected remedy will involve a number of actions, including remedial design for 1-2 years after the ROD, remedial action of 2-3 years, followed by annual operation and maintenance for at least 30 years.

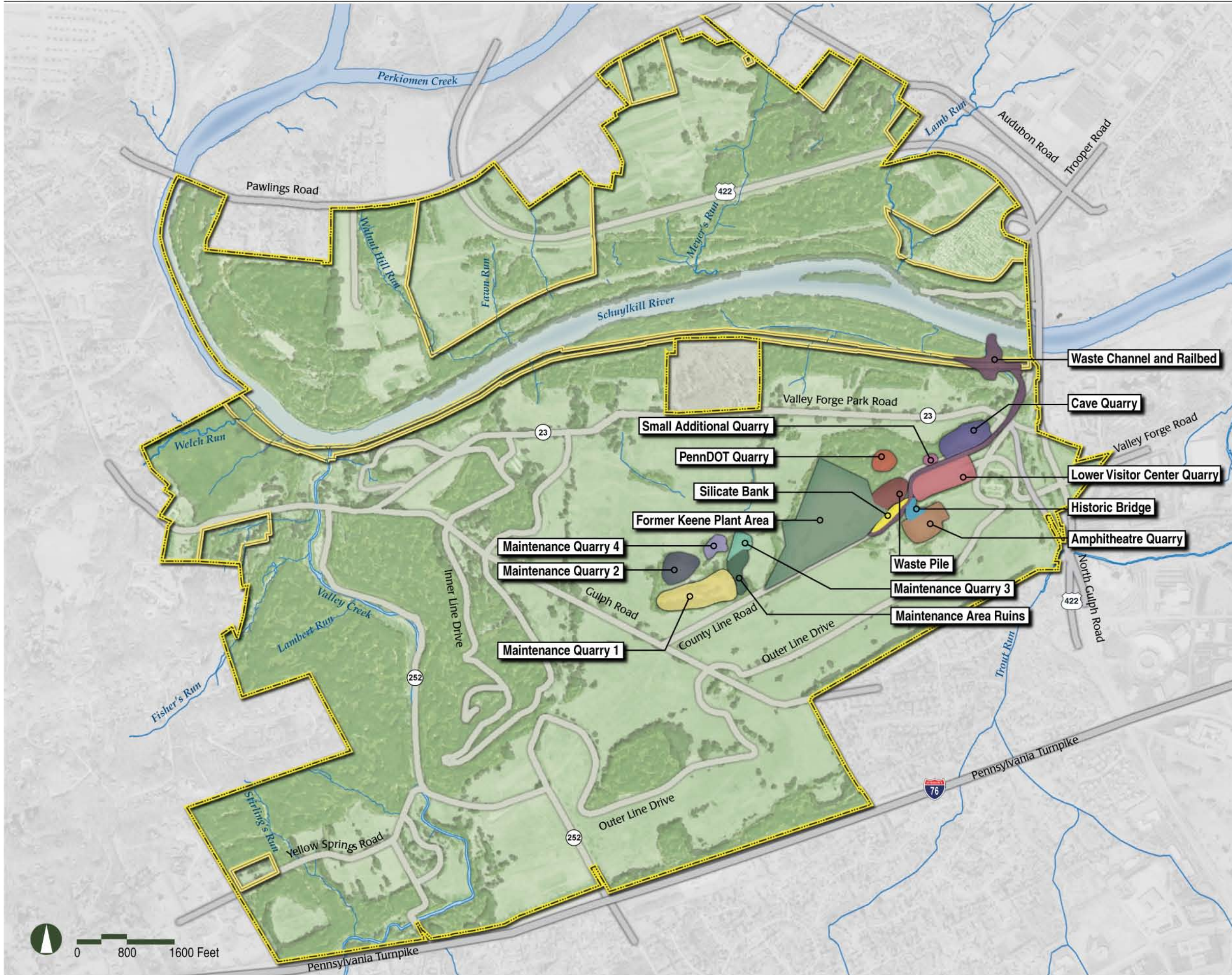
The GMP/EIS process and the ARS investigation and clean up process are separate but related. This GMP/EIS identifies alternative desired futures for the management of cultural and natural resources and visitor use throughout the park, including park areas within the ARS. Consistent with CERCLA and the National Contingency Plan, the separate public process described above will evaluate a suite of alternatives for cleaning up the ARS and returning the contaminated areas to safe and beneficial public use. A basic assumption of this GMP/EIS is that the ARS will be remediated to the extent that public use is restored, unacceptable risks to human health and the environment are eliminated, and further releases of asbestos-containing materials (ACM) or other site contaminants are eliminated.



Approximately 75 acres of park land on the historic Grand Parade are closed to visitors because of asbestos contamination. The U.S. Department of the Interior and the commonwealth of Pennsylvania are working together on plans for a clean-up.

### 1.6.2 Valley Forge Area Transportation Planning Study

The *Valley Forge Area Transportation Planning Study* (VFATPS) was a joint effort sponsored by the NPS, the U.S. Federal Highway Administration (FHWA), and the Pennsylvania Department of Transportation (PennDOT). The study was steered by those agencies and the DVRPC, the Montgomery and Chester County Planning



- Park Boundary
- Inholdings



**Figure 1-3**  
Asbestos Release Site  
Areas of Concern





Commissions, and the Upper Merion Township Transportation Authority. The goal of the study was to develop a range of comprehensive solutions to the traffic and transportation problems of the area. The range of options as a whole was intended to both improve the quality of life for regional residents and also preserve and protect the park.

A public process solicited a full spectrum of community concerns. In September 2002, recommendations for further actions were released (Boles Smyth Associates). Some of the major recommendations pertaining to the park included

- continuing location studies for PA Route 23 in the vicinity of the park
- reducing traffic impacts in the park and surrounding areas
- improving park transit and mobility connections
- improving the US 422 corridor
- making structural improvements at the interchanges of US 422 with PA Routes 363 and 23

Following a scoping field review for the US 422-related projects, a Programmatic Agreement was signed by the NPS, FHWA, and PennDOT in December 2002. The agreement is intended to advance the VFATPS recommendations by providing methods for streamlining implementation of those projects and by outlining agency responsibilities for implementation (see Appendix A for a copy of the agreement).

The steering committee initiated the implementation phase for the VFATPS Programmatic Agreement in July 2003 and will further evaluate the transportation elements that will reduce traffic congestion in and around the park. The effort includes two distinct but interrelated initiatives.

The first implementation initiative is a set of three projects that, for ease of understanding, collectively have been named the “River Crossing Complex (RCC),” although they have independent utility. The RCC includes

- final design for the replacement of the Betzwood Bridge, a project that has been underway for some years
- environmental clearance and preliminary engineering for the upgrading of the interchange of US 422 and PA Route 363, including widening of US 422 between PA Route 363 and US 202
- environmental clearance and preliminary engineering for the upgrading of the interchange of US 422 and PA Route 23, including relocation of North Gulph Road within the park

The second implementation initiative is the preparation of transportation elements and evaluations included as part of the alternatives presented by this GMP/EIS. These elements were developed from the park options of VFATPS, with the help of additional analysis and public comment. These options are described in Section 2.1: Alternatives Development.

This initiative included early coordination with the environmental review agencies regularly involved in PennDOT’s “10-Step” transportation development process. This was to ensure consistency of the NPS and PennDOT processes for

implementing potential transportation projects. Transportation elements that are recommended by the Final GMP/EIS and ROD may require additional assessment and environmental clearance to be implemented. The process should be shortened considerably due to this interagency coordination, assessment, and public involvement completed by the GMP/EIS process.

### **1.6.3 Montgomery County Planning Commission Initiatives**

The Montgomery County Planning Commission actively plans and implements a trails network in the county and has established a number of trail extensions around Valley Forge NHP. The multi-use Schuylkill River Trail, which begins in center city Philadelphia and previously stopped at the Betzwood area of Valley Forge NHP, was extended two miles through the park in summer 2002, bringing 280,000 bicyclists to this area in 2003. Future development of the Schuylkill River Trail will extend it north along the Schuylkill River, resulting in a trail totaling 100 miles.

Five cross-county trails currently link or are planned to link to the Schuylkill River Trail and will provide direct access to the park from throughout Montgomery County as well as from Bucks and Berks Counties. One of these is the Perkiomen Trail, a 19-mile, multi-use trail completed in 2003 that runs alongside Perkiomen Creek from a junction with the Schuylkill River Trail at Oaks to the largest Montgomery County park – Green Lane Park. The GMP/EIS process considered the resource protection, visitor, and recreational needs and opportunities that these connecting trails will pose for the park.

Through its Schuylkill River Greenway initiative, the county is working with municipalities and others to establish a 42-mile riverfront system of trails, protected open space, revitalized towns, and connected suburban development in order to enhance river access and recreation, preserve key natural resources, and foster inter-jurisdictional planning and smart growth among the watershed communities. Three miles of the Schuylkill River flow through the park, and the river's riparian zone within the park is among the least developed in the entire river corridor. The GMP/EIS process considered appropriate park partnership roles in implementing the greenway, including participation in development of a management plan, completion of the water trail, and advocacy for better management of the streams that flow through the park from beyond the park boundary.

### **1.6.4 Chester County Planning Commission Initiatives**

The Chester County Planning Commission provides ongoing planning services to townships, including resource assessment, policy formulation, and technical assistance in the areas of open space preservation, trail planning, recreation, and transportation. The GMP/EIS planning process has incorporated consideration of commission initiatives to better connect the park with its surroundings, protect open space and natural resources, and improve regional transportation.

The commission's 2002 *Linking Landscapes*, a component of the county's comprehensive plan, is a plan for multi-municipal open space planning on a county-wide basis. In regard to Valley Forge NHP, the plan emphasizes protection of remaining open lands adjacent to the park, both to protect the open space qualities of the park and also as part of a network of greenways. The GMP/EIS planning process

considered appropriate park partnership roles in achieving goals of mutual concern. These include

- working with the county, municipalities, and private landowners to protect the Valley Creek watershed from degradation due to excessive and polluted stormwater runoff
- working with the county and Tredyffrin Township on a future connection from Valley Forge NHP through the township's Wilson Park to the future cross-county Chester Valley Trail; this connection also would provide trail access between Valley Forge NHP and the Paoli Battlefield, a National Historic Landmark, as well as to additional revolutionary war sites and resources in the area
- working with the county (as well as Montgomery County and the Schuylkill River Valley National Heritage Area) to establish a water trail on the Schuylkill River

### **1.6.5 Schuylkill Valley Metro and Related Transit-Oriented Development Study**

The Schuylkill Valley Metro (SVM) is a proposed 62-mile rail-transit system between Reading and Philadelphia that would respond to increasing transportation demands in the Schuylkill River Valley area. The future suburban transit corridor would use the existing Norfolk & Southern Railroad right-of-way (which passes through the park) and is intended to transport approximately 50,000 passengers a day.

One of the proposed transit stations along the corridor, the Port Kennedy station in Upper Merion Township, would be located less than a half-mile northeast of the park's entrance. A study is being conducted to gather public input on the design concepts for the Port Kennedy station. This future transit system and nearby station have the potential to establish the park as a major destination. A historic station – used by commuters until the 1980s – also remains in the park and has the potential to be used by park visitors.

The GMP/EIS alternatives consider how the SVM's transit and station proposals could be coordinated with the park's transportation activities and impacts, visitor experience, and tourism marketing.

### **1.6.6 Schuylkill River Valley National Heritage Area Management Plan and EIS**

The Schuylkill River Valley National Heritage Area and Pennsylvania Heritage Corridor extend from Pottsville, PA to Philadelphia. Valley Forge NHP lies roughly at the center of the corridor. The heritage area completed *Living with the River*, a management plan and EIS, in 2003 for preservation and interpretation of the river valley's significant historic, cultural, and natural resources, and for heritage-related economic development in the corridor (Wallace Roberts and Todd, LLC, et. al.). The plan is organized around four principles – geography, interpretation, programs, and institutions – and is guided by the goal to unify the heritage area's resources and traditions through various strategies and actions.

Valley Forge NHP and the heritage area share common geography and purposes. Mutual goals include heritage preservation and interpretation, public education, and preservation of natural and recreational resources. The planning processes of both entities consider and reflect this relationship. The GMP/EIS planning process considered park partnership roles in providing consistent, corridor-wide interpretation and education; completion of the Schuylkill River water trail; and joint marketing for heritage tourism.

### **1.6.7 Valley Forge Alternative Transportation Feasibility Study**

Completed in May 2004, this study, prepared by the U.S. Department of Transportation's Volpe National Transportation Systems Center, analyzed the potential to provide shuttle service for park visitors. Options for interpretive shuttles and simple transit shuttles were examined. By providing transportation and reducing the volume of traffic in the park, Valley Forge NHP would have the opportunity to greatly improve the visitor experience as well as resource protection. The study concluded that alternative transportation would likely attract a significant number of riders and that if any park roads were closed, as proposed in some GMP alternatives, passengers would be added to the system. Completion of this study was necessary to the development and assessment of the GMP alternatives. The Greater Valley Forge Transportation Management Association provided important information on local conditions.

### **1.6.8 Schuylkill Watershed Conservation Plan**

The Schuylkill watershed comprises the 130-mile-long Schuylkill River and approximately 180 tributary streams. In total, the watershed covers over 1,900 square miles and includes 11 counties. Nearly three million people live within this watershed and/or rely on it for their water supply. The Schuylkill Watershed Conservation Plan was completed in 2001 through the combined efforts of the Patrick Center for Environmental Research of the Academy of Natural Sciences, the Conservation Fund, the Natural Lands Trust, and state and local governments (Pennsylvania Department of Conservation and Natural Resources). It provides a watershed-based approach to land use planning and natural resource conservation. The report describes the current conditions that exist within the watershed, including water quality, physiography, and demographics. It describes current watershed problems (non-point source pollution, acid mine drainage, water supply) and the impact that future land use and population trends may have on these issues. It also offers recommendations for avoiding these problems and remediating current conditions.

A number of the plan's recommendations were incorporated into proposed management objectives in this GMP/EIS. The watershed plan's emphasis on establishment of a sustainable landscape (defined as a matrix of natural lands that function together within an area to maintain the essential ecological processes that support life and maximize and sustain natural biodiversity across the region) is reflected in GMP objectives through the use of best management practices in natural resources management; protection and enhancement of high-value habitats; restoration of sub-watersheds; establishment and protection of greenway corridors; and control of invasive flora and fauna. Many of these would be implemented through partnerships with other jurisdictions and private entities.



### 1.6.9 Valley Creek Integrated Stormwater Management Plan

The Chester County Water Resources Authority is leading an initiative to develop an *Integrated Stormwater Management Plan* for the approximately 23-square-mile Valley Creek watershed, of which about one square mile is in Valley Forge NHP. The county's plan identified this watershed as its top priority for water quality restoration due to the creek's state designation as an Exceptional Value stream with a population of naturally reproducing trout. Approximately 32% of the stream miles are not meeting their targets due to runoff from developed lands. The stream is subject to frequent and severe flash flooding.

The plan will include both a Pennsylvania Act 167 stormwater management study for a watershed-wide approach to preservation and restoration, and also a natural stream assessment (fluvial geomorphology study) to identify how well various stream reaches are functioning. The final plan will provide a model stormwater management ordinance for adoption by each municipality in the watershed, as well as recommendations for stormwater management and watershed restoration. Future implementation of the plan will directly affect that portion of the creek that is within the park, since it lies at the bottom of the watershed.

### 1.6.10 Valley Creek Restoration Plan

Following the discovery of PCB contamination of Valley Creek, the Valley Creek Trustee Council was formed to develop a plan for recovery of the creek's natural and recreational values. The council, comprising Valley Forge NHP and the Pennsylvania Fish & Boat Commission, was authorized under the federal Superfund law to manage the resources of Valley Creek damaged by PCB discharges. In 2004, after a public process, the council issued a *Restoration Plan and Environmental Assessment* for Valley Creek.

The purpose of the plan is to improve habitat to promote angler use of the creek, which has diminished by restrictions related to the presence of PCBs. The plan calls for projects that will increase stormwater infiltration, stabilize stream channels, maintain greenways along the creeks in the watershed, increase access by anglers and other users of the watershed, and restore a population of brook trout in Crabby Creek. Grant money is available for projects in the watershed that meet these goals.

To implement restoration actions in the plan, the Valley Creek Restoration Partnership was formed, comprising environmental groups with active advisory participation from the park; federal, state, and local government; and universities. Successful implementation will dramatically lessen the severe impacts of flash flooding along Valley Creek in the park.

### 1.6.11 American Revolution Center

During the period in which this GMP/EIS was prepared, the NPS also worked with a partner to conceive and plan a museum of the American Revolution. As noted above, the Reverend Doctor Herbert Burk and his supporters founded the Valley Forge Historical Society in 1918, and the society's collection of American Revolution artifacts, art books, and other documents were displayed at a small museum in the Washington's Memorial Chapel. As the congregation grew, however, more space was required for church-related activities, and as a result, in 1998 the church and the society mutually agreed to separate. With the separation, a 40-acre

parcel of land jointly owned by the groups was subdivided so that a separate museum could be constructed.

In exploring potential growth opportunities, the society met with Valley Forge NHP and began a series of discussions that led to a realization of the complimentary nature of their collections, as well as the similarity of their preservation and interpretive missions and operating needs. In 1999, after three years of discussion and negotiation between the two groups, Congress passed the Pennsylvania Battlefield Protection Act of 1999 (Public Law 106-86), which authorized the secretary of the interior to establish a public/private partnership with the society to construct and operate a museum of the American Revolution in the park and to enhance learning and the visitor experience in the park as a whole.

To carry out its responsibilities, the society established the 501(c)(3) National Center for the American Revolution (now known as the American Revolution Center or ARC) in 2000 and transferred its collection and all agreements related to the new museum to ARC. Public Law 106-86 and the resulting Cooperation Agreement between NPS and ARC stipulated that the ARC would

- fundraise, oversee design and construction, and manage the overall project, subject to NPS approval
- convey title to the completed museum to the United States
- operate the museum, and offset its operating and maintenance expenses through revenue-generating activities including admission fees, appropriate retail and food service sales, events, and endowment

The ARC at Valley Forge could conserve and present to the public the joint collections of the park and the center, which could constitute the largest and most comprehensive collection of American Revolution artifacts and documents in existence. It could serve as the foundation and starting point for new interpretive opportunities and services to visitors at rehabilitated historic structures and landscapes throughout the park. Working with educators and scholars, as well as other American Revolution historic sites and national park sites, the partnership could develop programs, training, and materials to ensure broad public understanding of the meanings of the American Revolution.

The NPS and ARC were not able to come to agreement on the size and scope of the facility, as well as on other terms. In October 2005, ARC withdrew from the agreement and made clear its intention to pursue other opportunities for developing a museum that would not include the NPS. This Draft GMP/EIS was subsequently adjusted to remove options for the museum from the alternatives and from the analysis of impacts.

If in the future NPS and ARC resume discussions and come to agreement, planning alternatives for the facility would be developed and analyzed in an environmental assessment that would tier off this GMP/EIS. Any facility would be located within the proposed Park Support Zone, which comprises the area previously developed with visitor facilities (see Figure 2-8 for the location of this zone).

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## 1.7 Regulatory, Management, and Legislative Considerations

This EIS has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended; regulations of the Council on Environmental Quality (CEQ) (40 CFR 1508.9); and NPS Director's Order #12, "Conservation Planning, Environmental Impact Analysis, and Decision-making." In some cases, the general nature of the management objectives and potential actions dictates that the analysis of impacts also be general. Where possible, proposed actions have been described in detail and corresponding impacts have been identified. However, the majority of the analysis is programmatic in nature and further environmental compliance may be required before actions can be implemented. Table F-1 (Appendix F) provides a list of proposed actions related to the NPS Preferred Alternative that may require additional NEPA compliance.

Compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (36 CFR 800) will be completed separately but concurrently through a Programmatic Agreement with the Pennsylvania State Historic Preservation Officer (SHPO), the Advisory Council on Historic Preservation (ACHP), and other interested parties. The Programmatic Agreement lists the potential actions that may require further compliance with Section 106 of the NHPA and identifies the necessary steps the NPS will take prior to implementation. A draft Programmatic Agreement is located in Appendix G, and Table F-1 also identifies those proposed actions that will require additional compliance with Section 106.

In order to comply with other federal, state, and local regulations, some of the proposed actions in this GMP may require various permits and approvals depending on the action and its impacts.

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